Amendment to the Claims:

This listing of claims 1-13 will replace all prior versions, and listing of claims in the

application. Claims 1, 7 and 11-12 have been amended. Claim 13 has been added.

Listing of Claims

1. (Currently Amended) A method of reconstructing a surface of an object; the

object being represented by a 2-dimensional grid of measurements, where for each grid

point the measurements include corresponding information on a first slope of the surface

in a first direction and a second slope of the surface in a different second direction; the

method including

selecting a 2-dimensional part of the grid **over which an accurate**

reconstruction may be carried out and

fitting a corresponding part of the surface to the measurements of all grid

points in the selected part, **thereby significantly reducing the effect of a localized**

measurement error to the area of the selected 2-dimensional part, and

providing a representation of at least the reconstructed surface part,

where the fitting for each grid point of the selected part is based on both the

corresponding first and second slope information.

2. (Original) A method as claimed in claim 1, including performing the fitting through a

least-square minimization operation.

3. (Original) A method as claimed in claim 2, including performing the least square

minimization operation by solving an equation that describes a shape of a soap film

loaded with a pressure field equal to a divergence of a slope vector including the first and

second slope information.

4. (Original) A method as claimed in claim 1, wherein the selected part of the grid is

substantially the entire grid.

5. (Original) A method as claimed in claim 1, including measuring for each point of the

grid the first and second slope using deflectometry.

6. (Original) A computer program product operative to cause a processor to perform the

steps of the method as claimed in claim 1.

7. (Currently Amended) A system for reconstructing a surface of an object including:

an input for receiving a 2-dimensional grid of measurements representing a

surface of an object, where for each grid point the measurements include corresponding

information on a first slope of the surface in a first direction and a second slope of the

surface in a different second direction;

a processor ~~for~~, under control of a program, **for**

(a) selecting a 2-dimensional part of the grid **over which an accurate reconstruction may be carried out** and

(b) fitting a corresponding part of the surface to the measurements of all grid points in the selected part, **thereby significantly reducing the effect of a localized measurement error to the area of the selected 2-dimensional part,** where the fitting for each grid point of the selected part is based on both the corresponding first and second slope information; and

an output for providing a representation of at least the reconstructed surface part.

8. (Original) A system as claimed in claim 7, wherein the system includes a measurement unit for measuring for each measurement point of a measurement grid the corresponding first and second slope information.

9. (Original) A system as claimed in claim 8, wherein the measuring is performed along non-straight lines; the measurement grid being directly used for the reconstruction.

10. (Original) A system as claimed in claim 8, wherein the system the measurement unit includes a deflectometry measurement unit.

11. (Currently Amended) A method of reconstructing a surface of an object; the object being represented by a 2-dimensional grid of measurements, where for each grid point the

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measurements include corresponding information on a first slope of the surface in a first

direction and a second slope of the surface in a different second direction; the method

including**:**

selecting a 2-dimensional part of the grid **over which an accurate econstruction**

may be carried out and

fitting a corresponding part of the surface to the measurements of all grid points in

the selected part, **thereby significantly reducing the effect of a localized measurement**

error to the area of the selected 2-dimensional part,

where the fitting for each grid point of the selected part is based on both the

corresponding first and second slope information**,**

whereby said fitting is performed through a least-square minimization operation

by solving an equation that describes a shape of a soap film loaded with a pressure field

equal to a divergence of a slope vector including the first and second slope information**,**

and

providing a representation of at least the reconstructed surface part,.

12. (Currently Amended) A system for reconstructing a surface of an object including:

an input for receiving a 2-dimensional grid of measurements representing a

surface of an object, where for each grid point the measurements include corresponding

information on a first slope of the surface in a first direction and a second slope of the

surface in a different second direction;

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a processor~~for~~, under control of a program, **for**

selecting a 2-dimensional part of the grid **over which an accurate**

reconstruction may be carried out and

fitting a corresponding part of the surface to the measurements of all grid

points in the selected part, **thereby significantly reducing the effect of a localized**

measurement error to the area of the selected 2-dimensional part, where the fitting

for each grid point of the selected part is based on both the corresponding first and second

slope information; and

an output for providing a representation of at least the reconstructed surface part,

wherein the system includes a measurement unit for measuring for each

measurement point of a measurement grid the corresponding first and second slope

information and wherein the~~), wherein~~ the system the measurement unit includes a

deflectometry measurement unit.

13. (New) A computer program product for reconstructing a surface of an object, the

computer program product being embedded in a computer readable medium and

comprising computer instructions for:

selecting a 2-dimensional part of a 2-dimensional grid of measurements

over which an accurate reconstruction may be carried out, where for points in the grid the

measurements include corresponding information on a first slope of the surface in a first

direction and a second slope of the surface in a different second direction;

fitting a corresponding part of the surface to the measurements of said grid

points in the selected part, thereby significantly reducing the effect of a localized

measurement error to the area of the selected 2-dimensional part; and

providing a representation of at least the reconstructed surface part, where

the fitting for said grid points in the selected part is based on both the corresponding first

and second slope information.